

The big question is why? Why were there suddenly so many new animals, such as trilobites, with lots of new equipment, in the Cambrian Period? It wasn't just that mineral-hardened skeletons became fossilized, making it easier for us to see life. There were plenty of new soft-bodied animals, too. Fossils such as burrows, that show behavior, became more complex too. The answers are not simple. Here are some educated guesses:

- ❶ Oxygen levels could have changed. A certain level of oxygen is needed for larger, more complex animals.
- ❷ Changes in the positions of continents, affecting ocean currents, could have changed the climate (Briggs and others, 1994).
- ❸ A toolbox of developmental genes that permitted the construction of large and complex bodies evolved (Nigel Hughes, 2002, University of California–Riverside, personal communication).
- ❹ Animals began to need armored skeletons because other animals were trying to eat them (Briggs and others, 1994).

In the end, it's still a puzzle, one of the greatest unsolved mysteries of all life. But nothing succeeds like success, and the trilobites didn't look back for 300 million years.



The National Museum of the Czech Republic, in Prague, is old and fantastic and set in the old tradition of museums (cases filled with trilobites). The trilobite sculptures on the outside of the building are not particularly modeled after any certain species. The Czech Republic is famous for its trilobites. Joachim Barrande, one of the most famous early workers on trilobites, was centered in Prague, and his collection now resides in the National Museum.

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